A STUDY OF LOGISTIC SERVICE QUALITY IN A CONTAINER TERMINAL OPERATIONS

By

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Table of Contents

LIST OF TABLES

List of Figure

ABSTRAK

Kajian ini difokuskan kepada tahap kepuasan terhadap perkhidmatan yang diberikan oleh pihak terminal kontena kepada penggunanya. Pengguna utama terminal kontena tersebut terdiri daripada agen perkapalan, agen penghantar, syarikat pengangkutan dan ramai lagi. Analisis dijalankan dengan mengambilkira setiap unit diwakili oleh individu kakitangan operasi daripada pengguna utama terminal kontena. Pembolehubah bersandar bagi kajian ini adalah perasaan puas hati dan pembolehubah tak bersandar adalah orang yang dihubungi untuk menilai kualiti pesanan, kualiti informasi, prosedur pemesanan, ketepatan pesanan, keadaan pesanan, kualiti pesanan, pengendalian pesanan yang bermasalah dan ketepatan waktu. Jumlah keseluruhan borang soal selidik yang diedarkan berjumlah 150 dan sebanyak 128 orang yang berjaya mendapat tindak balas pengguna dan hanya 116 borang soal –selik dapat digunakan untuk penyelidikan ini. Model yang digunakan dalam kajian ini adalah “Kualiti Perkhidmatan Logistik ”. Keberhasilan analisis dan kekurangannya dapat dibuktikan. Kajian ini bertujuan membina pemahaman yang lebih jelas mengenai faktor utama yang mempengaruhi tahap kepuasan pengguna di terminal kontena tersebut. Juga untuk mengenal pasti aspek kepuasan pengguna di terminal bagi menghasilkan perkhidmatan yang berkualiti dan memuaskan hati penggunanya serta dapat digunakan sebagai salah satu sistem langkah amaran awal untuk meningkatkan mutu kepuasan pengguna terminal kontena tersebut.

ABSTRACT

The study is focused on the satisfaction level of the container terminal main users. The main users of the container terminal are the shipping agent, forwarding agent, hauliers and others. The unit of analysis was individual operations staffs from the main users of the container terminal. The dependent variable was satisfaction and the independent variable was personal contact quality order release quality, information quality, ordering procedures, order accuracy, order condition, order quality, order discrepancy handling and timeliness. Total number of questionnaires distributed personally was 150 and the number of questionnaires collected back was 128 of which 116 questionnaires was useable. The model used in this study was "The Logistic Services Quality ".A reliability analysis and regression analysis was carried out. The study was to develop a clear understanding of the key factors that influences container terminal user's satisfaction level. To identify important attribute of container terminal service quality towards customers satisfaction that could be used as an early warning system for container terminal operators. The finding of the study showed that the logistics service quality model is a reliable model to study satisfaction level in the container terminal operation. It was also found that for the independent variable timeliness, information quality, order condition and order accuracy are the main concern of the users. As for the overall satisfaction level, the main concern of the users is the personnel contact quality. Where by, how the personnel's try to resolve problems encountered by the users. Also, the knowledge and experience of the personnel's are the factors which influence the satisfaction level of the users.

Chapter 1

Introduction

1.1 Background

A container terminal exists as an important and fundamental part of overall pattern of trade and transport. Today, container terminals are much more then just safe places to load and unload ships. The modern container terminal is a transport community where various firms and operators store, pack, process and assemble, often enhancing and quality testing goods on the container terminal area. Container terminal are inter-modal transport hubs, exchanging goods between road, rail, sea waterways and air providing a full range of distribution and logistics services. By any standard a container terminal is a complex operation and development in the world trade are if any thing making container terminal even more sophisticated. Container terminals now face some strong challengers, not at least those posted by new technology, customer demands for lower cost, quality services and most all customer satisfaction. Container terminals have to adapt if they are going to succeed and it is clear that the most successful modern container terminals are the ones that are innovative, forward looking and above all in time with new developments and demands of their customers.

As most of the international trade of Malaysia is by sea-borne, container terminals play a very important role in the economy of Malaysia. If in the past, government following the general principal of Public Administration managed the Malaysian ports, profits making was not the governing consideration. This was not without good reasons, most of the container terminals in Malaysia are Public Assets and are usually considered as mere interface between a national captive hinterland and the sea, most of the container

terminals are not required to act as a profit making institutions but to satisfy numerous objectives including social and political ones, such as national safety, contribution to the state budget or local employment. In the past container terminal competition either did not exist or existed only on small scale and container terminals were enjoying a special quasi-monopoly position. Over the last twenty years, the environment in which container terminals operated has greatly changed. The old fashioned attitude of being politically and administratively regulated has made container terminals incapable of adopting it self to the increasing port competition and satisfying the needs of foreign trade and national economy.

Today the commercial function and character of the container terminals are being fully recognized, container terminals should be considered first and foremost as a commercial undertaking like any other industry. Since world trade and transport are part of a highly competitive market, all container terminals are without expectation in the front line of the same international competition. To secure and develop in such circumstances, container terminals need to be given more freedom and responsibility based on commercial principles. Realizing the importance's of the commercial principals the government of Malaysia tabled the Ports (Privatization) Act 1990. Thus brought about rapid changes in terms of infrastructure, facilities, operators, equipment, manpower and operating system in Malaysia ports to meet the growing demand for container terminal facilities from the rapid economic growth of the country. The container terminal started to play a pivotal role in the economic development and prosperity of the nation. There are two key factors that have contributed to the development of the local container terminal industry. Firstly, industrialization and secondly international trade. These two

activities have transformed the Malaysian economy and together have transformed the Malaysian economy and together have created the necessary demand of container facilities. Industrialization and international trade are two complementary activities and they represent the catalyst for the growth of the container industry in Malaysia.

1.2 The business of containers

A shipping container is essentially a box designed to enable goods to be delivered from door-to-door without the contents being physically handled. There are several standard sizes used worldwide to enable the same container to be transferred from one mode of transport to other modes in the course of a voyage. Indeed, prime movers, tractors, rail wagons and fully cellular containerships are frequently used to transport containers. The most common size of containers are the 20 footer which measures about 20foot(6.1 meters) long by 8 foot (2.4 meters) wide by 8 foot 6 inches (2.6 meters) high and the 40 footer measuring about 40 foot (12.2 meters) long and having the same width and height as the 20 footer. The container is widely referred to as a box.

Containerization started in USA in 1955. Over the last 3 decades containerization is still a dominant mode of cargo transportation in the world and will continue to be so in the 21ST century due to the lack of a more effective and alternative method to move large volumes of cargoes safely, economically and on schedule. Twenty-foot equivalent unit (TEU) is used to quantify, for example slot capacity of a containership, the number of containers carried on a particular voyage or the annual container throughput handled by a container terminal, or it may be the unit on which freight is payable. TEU is a unit of measurement equivalent to one 20-foot shipping container. Thus one 40-foot container is equivalent to 2 TEU'S.

1.3 Container Terminals

A container terminal is a place where containerships are berthed for loading/unloading, storage of import, export and transshipment containers. The containers received from the ocean going containerships are transferred to inland carriers such as prime movers, trains or container barges and vice versa.

A basic container terminal should possess the following facilities:

(a) Container berth for the berthing of containerships.

(b)Container stacking yards for the storage of containers.

(c) Container freight stations (CFS) for stuffing and unstuffing of LCL (less container load) containers. CFS is a place where consignments are grouped together and packed into a shipping container or a specific place where such consignments are unpacked.

(d) Control room for the deployment of equipment and the monitoring of vessel performance.

(e)Administration building to house the ship planners to perform stowage planning of containers on board vessels, computer systems and finance personnel.

(f) Workshop to carry out preventive maintenance and repairs of equipment and containers.

(g) Container handling equipment for handling of containers.

Containerization started in the 1950's. Today, there are more then 350 container terminals worldwide. However most of them are feeder container terminals as they are not located within the major sea routes of the world.

1.4 Customer Satisfaction

In today's very competitive and rapidly changing business environment developing long-term relationships with customers has become a crucial not only to the container terminal's success but often to survival. Container terminals that have embraced a strategy for building customer retention and acquisition hold exceptionally strong beliefs about the importance of service excellence, which they view as a fundamental way to differentiate themselves from competitors, accelerate growth and improve profitability. This philosophy underlines the operating principle of such container terminals.

Briefly the common characteristics of services are intangibility, inseparability.perishibility, heterogeneity and ownership. All the above characteristics of services also apply to the container terminals. Intangibility is the most important characteristics of services, it is essentially intangible and as such it is impossible to feel, touch, smell or taste before they are purchased. Therefore it is quick common for potential customers to seek opinion of others before a particular service is purchased. Repeat purchase is very much dependent on past experiences. As a container terminal is a service-oriented entity, it is very important to give the quality service to its customers.

1.5 Problem statement

This study intends to investigate about the service quality and the satisfaction level of the container terminal users. During the last decade of service quality research, Parasuraman et al. (1985) have reported that excellent service is profitable strategy because it results in more new customers, more business with existing customer, fewer lost customers, more insulation from price competition, and fewer mistakes requiring the

performance of services. This statement holds true for the container terminal industry, which has been growing at a phenomenal rate, especially during the last decade. This growth which is attributed to the global economic boom leading to continuously increasing international trade, has increased competition for established container terminals, which have naturally experienced reduced customer loyalty (Lobo & Jain, 2002). Competition for trans-shipment cargo has also increased, and the focus has now shifted to the quality of services offered by container terminals to their customers (Lobo & Jain, 2002). Container terminals which play significant roles in transferring economic wealth to national as well as international economies, today handle 90 percent of the world's trade in terms of volume (Song & Yeo, 2004).Thus, understanding container terminal user's service quality and satisfaction level becomes crucial in light of importances of container terminals to national development.

Knowledge of customer satisfaction and requirements is essential for two reasons: It provides an understanding of how the customers define quality of services and products; and it facilitates the development of customer satisfaction questionnaires (Hayes, 1997). Furthermore, customer satisfaction is recognized as being of great importance to all commercial organizations because of its influence on repeat purchase behavior and word of-of-mouth recommendations (Berkman & Gilson, 1986). In general terms, customer satisfaction is seen as the essential determinant of business success (Moore et al. 1995). On the other hand, as competition has increased, customer satisfaction has been identified as a determinant of market share, return on investment and cost reduction (Burch et al. 1995).

Several studies have found that that it costs about five times as much in time, money and resources to attract a new customer as it does to retain an existing customer (Nauman, 1995). This creates the challenge of maintaining high levels of services, awareness of customer expectations and improvement in services and products. Satisfaction reinforces positive attitudes toward the product/service, leading to a greater likelihood that the same product/service attitudes and lessens the likelihood of using the same product/service again (Assael, 1987).

The demand for container terminal service is a derived demand, and container terminals must follow service quality trends-otherwise they will be left behind, especially if there are alternative transport systems that provide quality services which do not require cargo to pass through container terminal, as is the case of Europe and North America (Marlow & Paixao, 2001).

Within this context, evaluating service quality offered to customers is essential, and several evaluation models have been developed (Parasuraman et al. 1985; Cronin & Taylor, 1992; Cheung & Law, 1998). The most known and widely used model is SERVQUAL, developed by Parasuraman et al. (1985).In this study a different approach to service quality satisfaction level was taken, as container terminals are part of the logistics chain "THE LOGISTICS SERVICE QUALITY" model was adapted from Mentzer, Daneil Flint, &.Hult(2001).

1.6 Research Objectives

The container terminal operator received 13 complaints regarding their service quality with regards to satisfaction for the year 2005. Hence this study specially has two research objectives:-

1. This study intends to investigate about the service quality and satisfaction level of the container terminal users.

2. How the container terminal operator can improve its service quality.

1.7 Research Questions

Specifically two objectives of the study are to:-

1. To identify the satisfaction level of container terminal users.

2. Investigate whether the Logistics service quality model is applicable to the container terminal environment.

1.8 Significance of the study

This study would be a timely study because the new vision of the container terminal operator is "TO BE THE PREMIER PORT AND LOGISTICS CHAIN INTERGRATOR IN THE REGION". Being able to contribute to the knowledge of logistics service quality this study would not only be able to contribute to the achievement of the container terminal operator's vision but would also indirectly contribute to the nations vision 2020 for Malaysia to be a developed nation.

1.9 Definitions of key terms

Container Terminal: A container terminal is a place where containerships are berth for loading/unloading, storage of import, export and transshipment containers.

Logistics: The process of planning, implementing and controlling the efficient, cost effective flow and storage of raw materials, in-process inventory, finished goods and related information from point of origin to point of consumption for the purpose of meeting customer requirement.

Service quality: A common definition of service quality is that service should correspond to the customer's expectation and satisfy their needs.

Shipping agent: The agent of a shipper, a representative who acts on behalf of other persons or organization.

Hauliers: A haulage contractor or to provide transportation.

Forwarding Agent: Intermediary who arranges for the carriage of goods and/or associated services on behalf of a shipper.

1.10 Organization of the study.

The organization of the remaining chapters is as follows. Chapter 2 reviews the literature on the logistics service quality, theoretical framework and the development of the hypothesis for this study and summary of the study. Chapter3 address the methodology for this study. This includes the research design, variables, and population, procedures, measures and techniques used to analyze data for this study. Chapter4 explains the result from the analysis in chapter 3, which comprises of profile of respondents, reliability testing and multiple regressions, testing of hypothesis and summary of results. Chapter5 discuss the recapitulation of the study, finding, discsions.implications, limitations, areas for future research and conclusion.

Chapter 2

Literature Review

2.1 Introduction

The container terminal industry is continuing a period of dynamic change. To achieve a change in its business environment, container terminals need to understand its customer needs. One way of satisfying its user is to satisfy the customer's needs. This is crucial to establishing and maintaining a competitive advantage in the market place. Thus, reorganization of the importance's of the customer satisfaction has grown in recent years. Customer satisfaction can be considered the essence of success in today's highly competitive world of business. As such, customer satisfaction is increasingly becoming a corporate goal and more competitive organizations strive for quality in their product and services (Hubbert, 1994).

The development development of quality management systems has substantially been influenced by several American and Japanese quality experts : Deming, Juran, Feigenbaum , Crosby and Ishikawa (1985). The main theme of Deming is that by improving quality it is possible to increase productivity, which results in the improved competitiveness of the business enterprise (Kruger, 2001). Juran contributed to TQM by highlighting the importance's of quality control. Ishikawa provided four aspects of TQM quality circles, continuous training, the quality tool "Ishikawa diagram" and the quality chain. The views of the quality gurus are prominent in the manufacturing literature and they can be easily deployed for services.

2.2 Logistics

It is common notion that logistics involves the movement of physical goods from one location to another. As long as the construction of the great pyramids, man was concerned with how to move materials to construction site. Early references to the logistics are found primarily in military applications. Logistics received much attention from the military during both world wars. The Second World War necessitated movement of troops and supplies than any other period in history. A Dictionary of modern war (Luttwak, 1971) described logistics as, all the activities and methods connected with the supply of armed force organization, including the storage requirement, transport and distribution.

The definition of logistics used in this study is the one of council of supply chain management professionals, CSCMP:"Logistics management is that part of the supply chain management process that plan, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customer's requirements."(CSCMP.ORG).

According to CSCMP, Logistics management activities typically comprise. "inbound and out bound transportation management, fleet management, warehousing, material handling, order fulfillment, logistics network design, inventory management, supply/demand planning and management of third party logistics service providers." (CSCMP.ORG).

To varying degrees, the logistics function also includes sourcing and procurement, production planning and scheduling, packaging and assembly, and customer service. It is

also involved in all levels of planning and execution-strategic, operational and tactical. Logistics management is an integrating function, which coordinates and optimizes all logistics activities, as well as integrates logistics activities with other functions including marketing, sales, manufacturing, finance and information technology."(CSCMP.ORG).

2.3 Service Quality

A common definition of service quality is that the service should correspond to the customer's expectation and satisfy their needs and requirements. The definition of quality is that it satisfies needs and meets expectations, those of the customers, employees and owners. It is essential to fully understand the various needs and expectations of these groups. It is crucial to build in the right quality by balancing these partly contradictory demands on the service. Satisfied customers spread the good news quickly, something which is satisfying for the employees and most likely also for the owners. Service quality has been increasingly identified as a key factor in differencing service and building competitive advantage. Service account for almost two-thirds of the world output (World Bank, 2002). Particularly, advances in information technology have vastly expanded the range of services that can be traded internationally (Braga, 1995) and the inclusion of "Generally accepted trade in services"
(GATS) in the Uruguay Round has drastically reduced barriers in trading services.

Measuring service quality is a challenging task because the concept of the services quality is inherently intangible in nature and difficult to define (Kandampully, 1997). Measuring improvements in service quality is even more challenging (Parasuraman & Zeithamal 1991). Commonly used techniques for measuring service quality include customer service audits (Takeuchi & Quelch, 1983), SERVQUAL

(Parasuraman et. al., 1985). Service quality has been termed “an elusive and indistinct construct” (Parasuraman et.al., 1985).

In the course of course of literature review of service quality it was found that there were several service quality models. Each catering the needs of particular service quality industries or organizations. Among the notable service quality modals are:

(a) Technical and functional quality model (Gronroos, 1984). The author identified three components of service quality, namely: technical quality; functional quality; and image.

(b) GAP model (Parasuraman et al., 1985). Parasuraman et al. (1985) proposed that service quality is a function of the differences between expectations and performance along quality dimensions. This exploratory research was refined with their subsequent scale named SERVQUAL for measuring customer’s perceptions of service quality. (Parasuraman et al., 1988). At this point the original ten dimensions of service quality collapsed into five dimensions: reliability, responsiveness, tangibles, assurance and empathy which capture access and understanding knowing the customers. Later SERVQUAL was revised in 1991 by replacing “should” word by “would” and in 1994 by reducing the total number of items to 21 but the five dimensional structure remaining the same.

(c) Attribute service quality model (Haywood-Farmer. 1988). This model states that a service organization has “high quality” if it meets customer preferences and expectations consistently. According to this, the separation of attributes into various groups is the first step towards the development of a service quality model. In general, services have three basic attributes : physical facilities and

process; peoples behavior; and professional judgment. Each attribute consists of several factors

(d) Synthesized model of service quality (Brogowicz et., al., 1990). This model attempts to integrate traditional framework, service design and operations and marketing activities. The purpose of this model is to identify the dimensions associated with service quality in the traditional managerial framework of planning, implementing and control.

(e) Performance only model (Cronin & Taylor, 1992). The authors investigated the conceptualization and measurement of service quality and its relationship with consumer satisfaction and purchase intentions.

(f) Ideal value model of service quality (Matteson, 1992). This model argues for value approach to service quality, modeling it as an outcome of satisfaction process. This value-based model of service quality suggests the use of a perceived ideal standard against which the experience is compared.

(g) Evaluated performance and normed quality model (Teas, 1993). The author proposed two framework for service quality (1) Evaluated performance (EP) framework and (2) Normed quality model.

(h) IT alignment model (Berkley & Gupta, 1994). This model links the service and the information strategies of the organization. It describes the use of IT for improving service quality through a number of case studies from variety of sectors (banking, courier, and transportation, manufacturing and service industries).

(i) IT- based model (Zhu et al., 2002). This model highlights the importance of information technology (IT) - based service options. Service providers are using IT to reduce costs and create value-added services for their customers. It proposes a service quality model that links customer perceived IT-based service options to the traditional service dimensions.

(j) Model of e-service quality (Santos, 2003). Service quality is one of the key factors in determining the success or failure of electronic commerce. E-service can be defined as the role of service in cyberspace (Rust & Lemon, 2001). This study process a conceptual modal of e-service quality with its determinants.It is proposed that e-service quality have incubative (proper design of a web site, how technology is used to provide consumers with easy access, understanding and attractions of a web site) and active dimensions (good support, fast speed, and attentive maintenance that a web site can provide to its customers) for increasing hit rates, stickiness, and customer retention.

Going through the above stated models and many other service models it was found that, the logistics service quality would be more suitable for this study because container terminals are part of the logistic chain.

2.4 Personnel contact quality.

Personnel contact quality refers to the customer orientation of the supplier's logistics contact people. For a container terminal operator its personnel’s should make an effort to under the situation faced by the users. Specifically, customer service personnel are knowledgeable, empathize with their situation, and help them resolve their problems, (Parasuraman, Zeithaml, & Berry 1985). Parasuraman, Zeithaml, and Berry (1985) argue

that in most service encounters, quality perceptions are formed during the service delivery., According to Surprenant and Solomon (1987) suggest that service quality perceptions are tied more to the service process, which involves personnel contact, than to the resulting service outcome. As such, personnel contact quality is an important aspect of the employee-customer interface (McKee 2000). One of the major determinants of service quality is timely and adequate response. Employees of the container terminal should be willing and able to deliver timely and substantive response to inquiries and complaints of customers.

2.5 Order Release Quantities

Request for container deliveries are properly met, difficulties never occur due to maximum delivery request and difficulties never occur due to minimum delivery request. Order release quantities are related to the concept the container terminal operator is able to met request promptly. Product availability. The organization can challenge customers' requests to ascertain the need behind their volume requests. Customers should be satisfied when they are able to obtain the quantities they desire. The importance of product availability has long been realized as a key component of logistics excellence (Mentzer, Gomes, & Krapfel 1989).

2.6 Information Quality

Information quality regarding Tariff and service quality of the container terminal operator is of prompt important to the users. If the information is available and of adequate quality, users should be able to use the information to make decisions to chose the the most practical service provided by the container terminal operator. Information

quality refers to customers' perceptions of the information provided by the supplier regarding services from which customers may choose (Mentzer, Flint, & Kent 1999).

2.7 Ordering Procedures

Requisitioning procedures are effective and requisitioning procedures are easy to use. Ordering procedures refer to the efficiency and effectiveness of the procedures followed by the supplier (Bienstock, Mentzer, & Bird 1997). As the hauliers are one of the main users of the container terminal they request for container should be promptly met.

2.8 Order condition

Container received from container operator is undamaged, container received from exporters is undamaged and damage rarely occurs due to transport mode. Order condition refers to how closely shipments match customers' orders upon arrival (Wagenheim 1989). This includes having the right items in the order, the correct number of items, and no substitutions for items ordered.

2.9 Order accuracy

Shipments rarely contain the wrong items and shipment rarely contains substituted items. Order accuracy refers to how closely shipments match customers' orders upon arrival (Bienstock, Mentzer, & Bird 1997). This includes having the right items in the order, the correct number of items, and no substitutions for items ordered

2.10 Order Quality

Given the intangible nature of services and the inseparability of production and consumption of the bulk of services, it is difficult for customers to perform prior evolution of the container terminal performance and services. Thus, trustworthiness,

believability, and credibility of the service supplier are crucial determinants of patronage. Order quality refers to how well products work (Novack, Rinehart, & Langley 1994). When the container terminal operator promises to do something by a certain time he does so, when you have a problem the container operator will show a sincere interest in solving it and the container operator is dependable.

2.11 Order Discrepancy Handling

Order discrepancy handling refers to how well the container terminal operator handles any discrepancies in orders after the orders arrive (Novack, Rinehart, & Langley 1994). You can trust the employees of the container terminal and the users feel safe in their transactions.

2.12 Timeliness

The container terminal operator will provide their services at the time they promise to do so, the container operator will perform the service right the first time and the container operator has operating hours convenient to customers. One of the major of service quality is timeliness. Timeliness refers to whether orders arrive at the customer location when promised. More broadly, timeliness also refers to the length of time between order placement and receipt (Hult 1998) this delivery time can be affected by transportation time, as well as back-order time when products are unavailable (Bienstock, Mentzer, & Bird 1997).

2.13 Satisfaction

Satisfaction is a post consumption evaluation of perceived quality relative to expected quality (Rust & Oliver, 1974). As stated by Brown and Swartz (1989), satisfaction occurs when outcome meets or exceeds the client's anticipated outcome and

actual outcome. Satisfaction and dissatisfactions often viewed as opposite ends of a continuum, with disposition being determined as a result of comparison between expectations and outcome (Oliver, 1980).

Customers often form satisfaction or dissatisfactions judgments by assessing the exchange relationship with the service providers. If the process of settling conflicts or problems is not appropriate, the customers are likely to be dissatisfied (Garrett & Mevers, 1996). Satisfaction is an experience-dependency construct and service quality alone does not require customer to go through experience. If the scale seeks respondent's assessment of their perceived service experience, it is essentially measuring satisfaction rather then service quality (Danaher & Haddrell, 1996). Although satisfaction applies to both tangible and intangible goods the emphasis in this study is on the service setting where the concept has been the subject of investigation in many studies. More over many authors make it a point to highlight that service quality and satisfaction are distinct contracts. The expectancy/disconfirmation paradigm in process theory provides the grounding for the vast majority of satisfaction studies and encompass four constructs:

1. Expectations
2. Performance
3. Disconfirmation
4. Satisfaction

Disconfirmation arises from discrepancies between prior expectations and actual performances. There are three possibilities: zero disconfirmation can result when a product performs as expected; positive disconfirmation can occur when the product performs better then expected; and negative disconfirmation when the product performs

below expectations and dissatisfaction sets in (Yi 1990). Operationally, satisfaction is similar to an attitude, as it can be assessed as the sum of the satisfaction s with the various attributes of the product or service (Churchill & Surprenant, 1982). However, while attitude is a pre-decision construct, satisfaction is a post-decision experience construct (La Tour & Peat, 1979). Satisfaction can be considered at two levels: the transaction or encounter level and overall satisfaction(Bitner & Hubbert,1994).

In conclusion according to McElwee and Redman (1993), the key factor which influences consumer perceptions about service quality is reliability. Reliability means consistency in performance and dependability. As container terminal operator performance and dependability are very important to the terminal users.

2.14 Theoretical Framework

Theoretical framework is the foundation on which an entire project is based. To identify a framework within which the main findings of the study could be presented. The tough competitive environment in which container terminal find themselves is causing the terminals to focus on customer satisfaction.

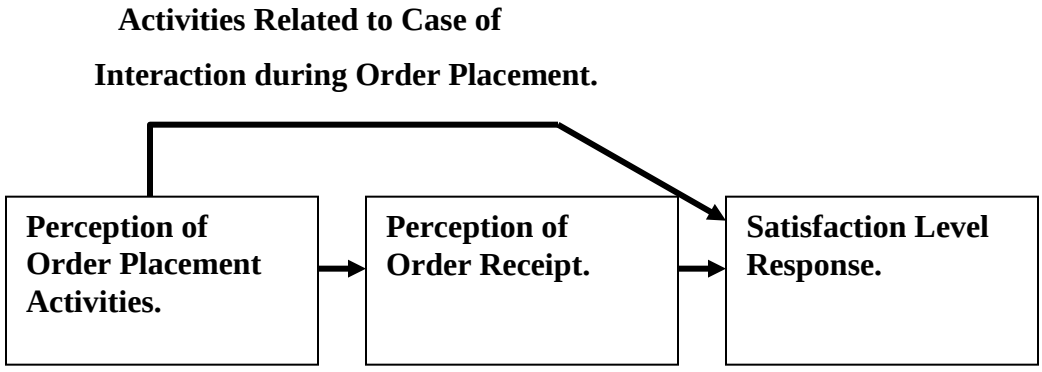

Figure 2.1 Theoretical Framework

Source: Mentzer. (2001) A General Customer Perceived LSQ Framework.

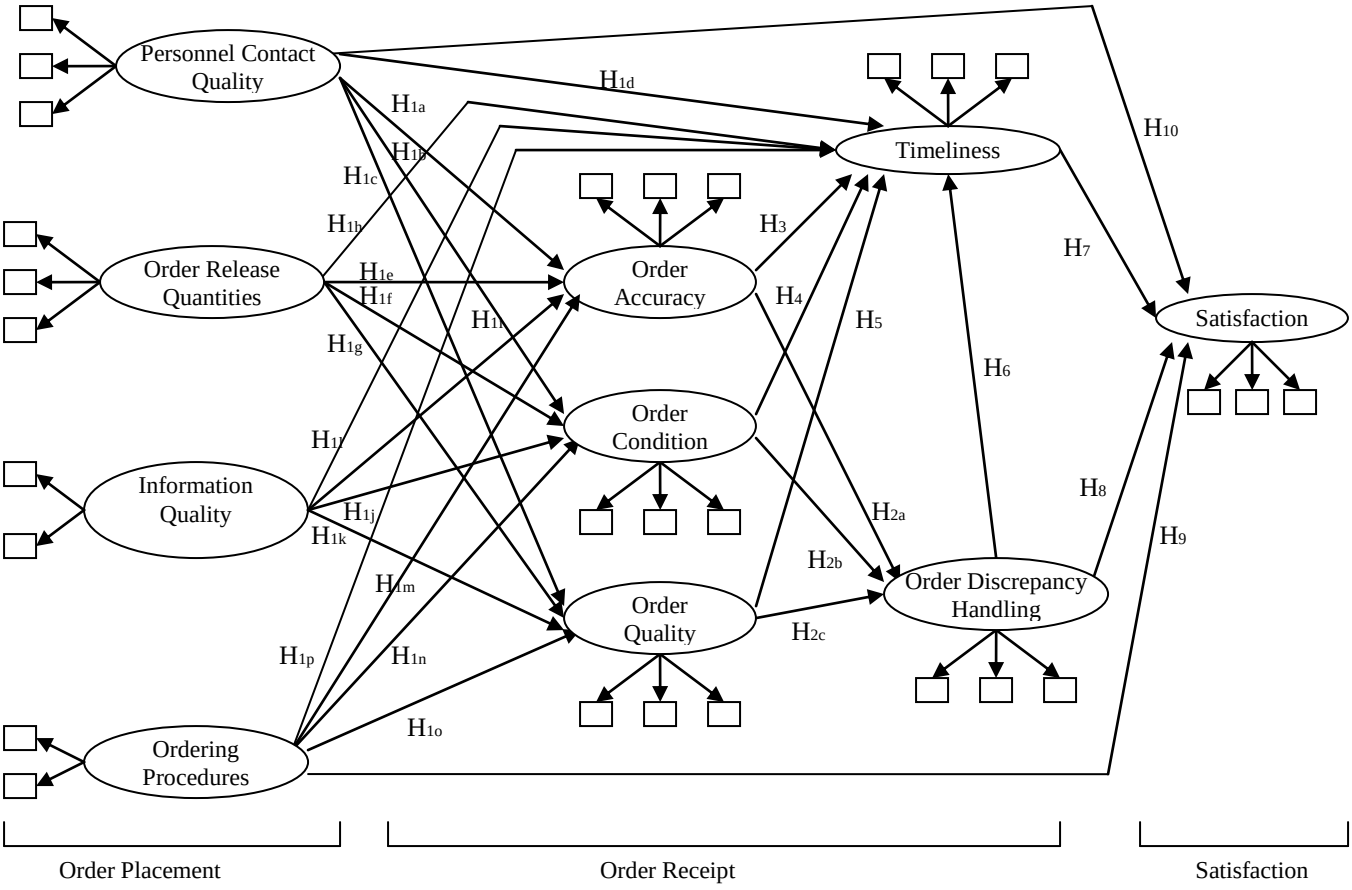

Figure 2.2 Theoretical Framework

Source: Mentzer. (2001), A General Customer Perceived LSQ Framework.

2.15 Hypothesis Testing

Based on the literature discussed on this chapter, this study hypothesis the following

H1: Perceptions of ordering-related constructs positively affect order receipt perceptions:

H1a: Personnel contact quality positively affects order accuracy.

H1b: Personnel contact quality positively affects order condition,

H1c: Personnel contact quality positively affects order quality,

H1d: Personnel contact quality positively affects timeliness,

H1e: Order release quantities positively affects order accuracy,

H1f: Order release quantities positively affects order condition,

H1g: Order release quantities positively affects order quality,

H1h: Order release quantities positively affects timeliness,

H1i: Information quality positively affects order accuracy,

H1j: Information quality positively affects order condition,

H1k: Information quality positively affects order quality,

H1l: Information quality positively affects timeliness,

H1m: Ordering procedures positively affects order accuracy,

H1n: Ordering procedures positively affects order condition,

H1o: Ordering procedures positively affects order quality and

H1p: Information quality positively affects timeliness.

H2: Perceptions of order receipt positively affects perceptions of order discrepancy handling procedures:

H2a: Order accuracy positively affects order discrepancy handling.

H2b: Order condition positively affects order discrepancy handling.

H2c: Order quality positively affects order discrepancy handling.

H3: Perceptions of order accuracy positively affects perceptions of timeliness.

H4: Perceptions of order condition positively affects perceptions of timeliness.

H5: Perceptions of order quality positively affects perceptions of timeliness.

H6: Perceptions of order discrepancy handling positively affects perceptions of timeliness.

H7: Perceptions of timeliness positively affects satisfaction.

H8: Perceptions of order discrepancy handling positively affects satisfaction.

H9: Perceptions of ordering procedures positively affects satisfaction.

H10: Perceptions of personnel contact quality positively affects satisfaction.

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2.16 Summary

Although satisfaction applies to both tangible and intangible goods the emphasis in this study is on the service setting where the concept has been the subject of investigation in many studies. Moreover many authors make it a point to highlight that service quality and satisfaction are distinct constants. Service quality and satisfaction are elements that many managers in container terminals would gladly profess to be striving to provide to their customers. Service quality in particular has been relentlessly expounded by consultants of various shades, the popular business press, as well as business schools. Most would agree without any prompting on the importance of offering their customers service quality. Customer satisficatin dissatisfaction results from experiencing a service quality encounter and comparing that encounter with what was expected (Oliver, 1980). Perceived service quality can be defined as the customers judgement about the superiority or excellence of a product or service (Zeithaml,1988). The dimensions underlying quality are fairly specific while satisfaction judgements have a broader range of dimensions that also include quality aspects (Oliver 1993).

Chapter 3

Methodology

3.1 Introduction

The present study seeks to investigate about the satisfaction level of the container terminal users. Thus, this chapter will deliberate on the methodological details of the study. It will comprise of research design, measurement of the variables, instrument, data gathering, data analysis and expected outcomes of the study.

3.2 Research Design

The purpose of this study is to conduct the satisfaction level among the terminal users under the service dimensions for logistic service quality. It will also explore the relationship between the logistic service qualities and container terminal users.

3.3 Sample and Unit of Analysis

The sample of this study are main port users such as shipping agents, forwarding agents, hauliers, and others. The unit of analysis is individual operation staffs. The questioners were distributed personally at the container terminal.

3.4 Variables and Measurement

The dependent variables in this study in the satisfaction level of the container terminal users. The independent variables are personal contact quality, order release quality, Information quality, ordering procedures, order accuracy, order condition, order quality, order discrepancy handling and timeliness. The convenience sampling design was undertaken because the most easily accessible members are chosen as subjects and it is quick, convenient and less expensive compared to other sampling designs.